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Elements which should be considered in developing program statements (educational specifications) based on a survey of the literature, are presented in this outline which recommends specific content as well. It is intended for use as a general guide in the preparation of such documents which are thorough, comprehensive, and functional. (FS)

BOARD OF REGENTS OF STATE COLLEGES

OUTLINE FOR PROGRAM STATEMENTS[1]

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Madison, Wisconsin
27 July 1966

The following detailed outline presents the elements which should be considered in developing program statements, and recommends specific content. It can be used as a general guide to documents that are thorough, comprehensive, and functional. Particular cases may, of course, require adaptation and modification.

I. GENERAL CONSIDERATIONS

This part of the program statement deals with matters which affect the entire institution and the project as a whole.

A. BACKGROUND INFORMATION

"If the educator can communicate the process, the characteristics, the attitudes, and the educational climate he would like to see expressed through architecture, this would be the ideal."[2] Architects like to have an understanding and feeling for the background of the project before they set to work. Well-developed statements at this point make it unnecessary for the architect to spend time perusing and digesting background documents.[3]

1. General Program

a. Philosophy.
"In planning. . . a school facility. . . it is the beliefs or the philosophy which are brought to the design that seems to make the difference."[4] Educational philosophy, including values, purposes, goals, and methods, founded on the level of

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[1] Based on Suggested Outline for Educational Specifications (Hartford: Connecticut State Department of Education, 1962) and Stewart D. North, To Create A School (Winneconne, Wisconsin: Wisconsin Association of School Boards, 1965), pp. 71-76.
[2] Vincent G. Kling as quoted by Karl T. Hereford, "Equipment," Creating a Climate for Adult Learning, edited by Herbert C. Hunsaker and Richard Pierce (Lafayette, Indiana: Division of Adult Education, Purdue University, 1958), p. 83.
[3] Harold W. Boles, Step By Step to Better School Facilities (New York: Holt, Rinehart, and Winston, 1965), p. 150.
[4] Hereford, Creating a Climate, p. 81.

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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observable behavior is important. The statement of philosophy should be simple, concise, free of pedagogical terminology, and comprehensible to the architect and his staff.[5] Broad philosophic statements that fail to meet these criteria are seldom of any real value in planning physical facilities.[6]

b. Characteristics of the Community Served.
A statement concerning the general characteristics of the community should include information on the relationships of this institution to others in the system (if any), and policy which provides for use by individuals and organizations that are not part of the institution.[7]

c. Instructional Program.
Present here the general objectives, learning activities and teaching situations: the instructional program of the institution.

2. Enrollment Data

Enrollment data, current and projected, can be presented in tabular form or in charts and graphs.

3. Project Budget

Include here a statement regarding the budget which shows details concerning: fees, site acquisition and development, preliminary planning, general construction, sub-projects, equipment, furniture, and supplies.

4. Project Timetable

This section indicates when each of the major steps from program statement through occupancy of building and use of outdoor areas must be completed. Generally, the more flexible the schedule and the longer the overall time, the lower the cost.

5. Description of Curriculum to be Housed

Include, in outline form, the curricula which make up the instructional program to be housed in the part of the physical plant affected by this project. Interpret enrollment trends in

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[5] For a delightful statement of philosophy of elementary education, in operational terms, see Edward Tracy and Hugh Moore, Jr., "How to Translate Educational Specifications Into a New School," School Management, Vol. 8, No. 2, (February, 1964), pp. 77-84.

[6] NCSC Guide for Planning School Plants (East Lansing, Michigan: The National Council on Schoolhouse Construction, 1964), p. 15.

[7] Ibid.

the various disciplines in terms of their effect on special classrooms and laboratories. Other trends, in teaching methods, organization of schedule, curricular requirements, etc., that might require different types of spaces should be mentioned. "Frequently, added flexibility for such specific modifications can be incorporated in the original design at little or no additional cost."[8] "The architect must know whether the day-to-day schedule contemplates large blocks of time, standard equal periods, or combinations of brief and long periods so that he may plan the circulation through the building accordingly."[9] Needs should be stated in a form which will stimulated solution by the architect. Include a brief statement, in behavorial terms, of the specific purposes, objectives, and methods of the disciplines and activities to be housed.[10] Also include a description of how this project, with its attendant program, relates to the general program and facilities of the whole institution now and in the future.

6. Personnel Requirements

Describe the characteristics of the people to be housed. Estimate the number of students who will occupy the building at any typical time, and the number of administrators, teaching faculty, research faculty, and supporting staff of technicians, secretaries, clerks, custodians, food service workers, etc., based on the proposed program.

7. Administrative Responsibilities

Define responsibility for: obtaining building permits, working with health department, meeting requirements of other governmental agencies, etc. Spell out the architect's responsibility for providing "as-built-plans" and "building-use manuals"if required. Needless to say, any of these matters involving the architect should also be spelled out in his contract.

B. GENERAL SITE INFORMATION

The program statement of educational requirements should include site data such as location, size, shape, and dimensions, physical description (topography, soil, and so forth), relationships to other buildings (current and planned), descriptions of right-of-way easements, and available utilities (electricity, gas, heat, water,

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[8] Ibid.

[9] Frank G. Lopez, "How to Develop Educational Specifications for a School Building," American Institute of Architects Journal, Vol. XXXIX, No. 1, (August, 1962),p. 90.

[10] For a list of the objectives of a mathematics department see Floyd G. Parker and Richard C. Featherstone, "How to Specify Educational Needs for a New School," The Nation's Schools, Vol. 37, No.1, (January, 1964) p. 53.

sewerage, transportation, etc.)[11] Append available site survey reports, surveryor's reports, and reports of soil exploration: general condition and test boring analysis. Indicate what effect the site will have on the height, shape and placement of the building or buildings, and what orientation, placement, (set-backs) and spatial relationships of building to site are desired.[12] State that the architect must design for future expansion and that the availability and utilization of land at that future time will partially determine whether expansion will be vertical or horizontal. As far as possible, explain the nature of contemplated additions.[13]

C. DESCRIPTION OF THE PHYSICAL PLANT

1. General Character of the Building

The design and style of architecture should be left to the recommendation of the architect, at least initially. "However, if the board has a preconceived design or style of architecture and will not accept anything else, such limitation should be clearly stated to the architect. Often community mores place restrictions on the style of architecture."[14] In any case, suggestions and limitations with reference to major sections or units, number of stories, approaches, materials of construction, interior finishes, and plant operations are mentioned in this section.

2. Interior Spatial Relationships

Describe and discuss the interrelationships of one instructional area to another, and to non-instructional supporting areas. This includes not only conventional zoning of the building to separate noisy and quiet areas but also what is needed to further interaction among classrooms, teaching laboratories, research facilities, offices, etc. "Since the architect is trained in visual techniques, examples and diagrams are of great help.. ."[15] By carefully working out these relationships, a finished school plant may be thoroughly functional."[16]

3. General Facilities Requirements

Describe the general facilities required for instructional, support, service, and community use. Clearly state the total of assignable spaces and the permissable ratio of assignable

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[11] Walter F. Bruning, "How to Select a Site for Easy Maintenance," The Nation's Schools, Vol. 37, No. 1, (January, 1964), p. 54.

[12] James D. MacConnell, "67 Questions to Keep Out Planning Errors," The Nation's Schools, Vol. 37, No.1, (January, 1964), p. 57.

[13] H.D. Bareither, Translating the Educational Program of an Institution into Physical Facility Requirements (Urbana, Illinois: University of Illinois, 1966), App. B, p. 1.

[14] NCSC Guide, p. 15.

[15] Lopez, A.I.A. Journal, Vol. XXXIX, No. 1, p. 90.

[16] Dwayne E. Gardner, "The 'Do's' and 'Don'ts' of Educational Specifications," American School Board Journal, Vol. 148, No. 6, (June, 1964), p. 19.

area to gross measured according to A.I.A. standards. "This should be predetermined to assure a reasonably efficient plan as far as space is concerned."[17] Air conditioning (cooling) and carpeting are currently so controversial in the public arena that policy concerning them should be included. Also cite board policy (if any).concerning multiple use of space, and the interdisciplinary nature of classrooms. Finally, append a list of space definitions, space factors, and guidelines as to their use.

II. SUMMARY LIST OF FACILITIES

Reproduce and include the Project Summary of Assignable Areas By Function (see Exhibit 1).[18] Provide a Summary of Space Requirements in Assignable Square Feet By Department and Functional Category (see Exhibit 2).[19] For interdepartmental rooms and for each department prepare a Departmental Summary of Space By Function and Room (see Exhibit 3).[20] Include in the above all required areas of assignable space. "These should be given in square feet, never in room dimensions, in order to capitalize on the architect's talent for organizing space efficiently. These are net areas, inside the walls and partitions, and should be totaled."[21] Inasmuch as they are controlled by the general GSF/ASF formula, non-assignable spaces, such as restrooms, custodial rooms, and circulatory areas, need not be summarized.

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[17] Lopez, A.I.A. Journal, Vol. XXXIX, No. 1, p. 90.

[18] Frederick E. Schwehr, A Guide for Preparing Program Statements Related to Academic Buildings at Wisconsin State Universities (Madison, Wisconsin: Board of Regents of State Colleges, The State of Wisconsin, 1965), Appendix C.

[19] Ibid., p. 11.

[20] Ibid. p. 7.

[21] Lopez, A.I.A. Journal, Vol. XXXIX, No.1, p. 90.

PROJECT SUMMARY OF ASSIGNABLE AREA BY FUNCTION FOR _____

BUILDING AT WISCONSIN STATE UNIVERSITY _____

AS APPROVED BY THE LEGISLATURE

Project Budget* _____

Est. Cost Per Gross Sq. Ft. _____

Functional Area	Assignable Sq. Ft.
Classroom	____
Teaching Labs	____
Offices	____
Library	____
Phy Ed	____
Research	____
Other Active Instructional Space	____
Total ASF	____
Total GSF	____
% of GSF-Assignable	____

* Excludes land and utilities.

EXHIBIT 1

SUMMARY OF SPACE REQUIREMENTS IN ASSIGNABLE SQUARE FEET
BY DEPARTMENT AND FUNCTIONAL CATEGORY

	Classrooms	Teaching Laboratories	Offices	Other Active Instructional Space	Research	Total
Inter-departmental	5,280			2,804		8,084
Biology		7,040	1,080	4,220	1,000	13,340
Chemistry		7,680	1,480	3,940	800	13,920
Physics		6,120	864	2,360	800	10,144
Mathematics			1,080	1,300		2,380
Industrial Technology			864		400	1,264
Power Mechanics		5,440	648	1,040	800	7,928
Industrial Graphics		7,725	800	1,000		9,525
Wood Technics		4,500	324	600		5,424
TOTALS	5,280	38,505	7,140	18,084	3,800	72,809
Allowance	5,000	38,609	7,200	18,000	4,000	72,809

EXHIBIT 2

DEPARTMENTAL SUMMARY OF SPACE
BY FUNCTION AND ROOM

CHEMISTRY

Teaching Laboratories			
1.	General Chemistry Laboratory 1 - 32 stations @ 30 sq. ft.	960 sq. ft.	
1.	General Chemistry Laboratory 2 - 32 stations @ 30 sq. ft.	960 sq. ft.	
1.	General Chemistry Laboratory 3 - 32 stations @ 30 sq. ft.	960 sq. ft.	
2.	General Chemistry Laboratory 4 - 40 stations @ 30 sq. ft.	1,200 sq. ft.	
3.	Organic and Biochemistry Laboratory - 25 stations @ 50 sq. ft.	1,250 sq. ft.	
4.	Quantitative Analysis Laboratory - 19 stations @ 50 sq. ft.	950 sq. ft.	
5.	Inorganic Chemistry Laboratory - 20 stations @ 70 sq. ft.	1,400 sq. ft.	
			7,680 sq. ft.
Offices			
6.	Chemistry Faculty Offices - 10 @ 108 sq. ft.	1,080 sq. ft.	
7.	Chemistry Conference Room	400 sq. ft.	
			1,480 sq. ft.
Other Active Instructional Space			
8.	Balance Room	600 sq. ft.	
9.	Instrument Room.	400 sq. ft.	
10.	Chemistry Stock Room	1,200 sq. ft.	
11.	Preparation Room 1	430 sq. ft.	
11.	Preparation Room 2	430 sq. ft.	
11.	Preparation Room 3	430 sq. ft.	
12.	Storage Room for Volatile Chemicals.	120 sq. ft.	
13.	Dark Room	150 sq. ft.	
14.	Minor Repair and Model Shop.	200 sq. ft.	
			3,940 sq. ft.
Research			
15.	Chemistry Research Laboratory 1.	200 sq. ft.	
15.	Chemistry Research Laboratory 2.	200 sq. ft.	
15.	Chemistry Research Laboratory 3.	200 sq. ft.	
15.	Chemistry Research Laboratory 4.	200 sq. ft.	
			800 sq. ft.
	TOTAL AREA		13,920 sq. ft.

EXHIBIT 3

III. SPECIFIC AREA DESCRIPTIONS[22]

This, the major part of the program statement, gives specific detail of educational requirements that architects must know to plan individual spaces properly. "The document. . . should contain all of the instructions and suggestions to the architect that can be written out in advance of the actual architectural planning. Anything germane to the purpose can be legitimately included and anything prolix excluded."[23] See Checklists of Details, page 14. Group the individual area descriptions by department or activity.

A. DESCRIPTION OF INDIVIDUAL AREA

1. Room or Area Name

   "Admissions Office," "Interdepartmental Classroom," "Biology Laboratory," "Animal Room," "Boiler Room," etc.

2. Room Number

   List the numbers of all rooms that fit this exact description: "101, 102, 103, & 104."

3. Number of Rooms Required

   Indicate the number of rooms of this description required in this project: "4".

4. Location

   Describe the location of rooms in relation to other rooms and areas, in each case where location is significant: "Room 101 near Biology Laboratory 89", "Room 103 near the Shipping and Receiving Area 3," etc.

5. Area

   Give total assignable area of room in square feet: "400".

B. PERSONS TO BE HOUSED

Indicate the following, as appropriate:

1. Student Stations

   "20 @ 20 square feet."

2. Teaching Stations

   "One."

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[22] Based on Schwehr, A Guide. . ., p. 12.

[23] Boles, Step By Step. . ., p. 69.

3. Research Stations

"None."

4. Spaces for Administrators

"None."

5. Spaces for Supporting Staff

"One - Faculty Assistant."

6. Spaces for Others

"One - Visitor," "30,000 Spectators," etc.

C. ACTIVITIES TO BE HOUSED

Indicate which activities from the following list, and what particular other activities, will take place in this room or area for significant portion of the time:

building and fabricating

conferences - private and/or group demonstrations - individual and/or group discussions

creating displays

laboratory experiences and experimentation - individual and/or group

lectures

listening and/or viewing - with and/or without A-V machines

note-taking

performances - athletic, dramatic, musical, and/or other - group and/or individual

project work - individual and/or group

reading

research - individual and/or group

special teaching and/or training

storage

maching programmed study

supervised study - individual and/or group

unsupervised study - individual and/or group

testing and examining - individual and/or group

work with ma hines - individual and/or group

writing and/or drawing at desks or tables

writing and/or drawing on chalkboard